TREATING
EROSIVE REFUX
ESOPHAGITIS

GIs discuss the benefits and cautions of repeat endoscopy testing.

ARTICLES CONTRIBUTED BY
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John I. Allen, MD, MBA, AGAF

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Note From the Editor

It is my great honor and pleasure to become the editor of AGA Perspectives, following the superb leadership of Dr. Sheila Crowe. My vision for the journal, which I shared with the AGA leadership, is as follows:

AGA Perspectives will provide a unique voice for the AGA membership with a focus on current topics, controversies, emerging treatments, education/training issues, evolving issues in GI health care, research and health-care policy. The overarching theme will be aligned with the AGA’s vision to promote research, education, advocacy and patient care. The content, while pertinent and well researched, differs from the editorial columns of our scientific journals, in that they are shorter, more emerging and opinion-oriented more than formal scientific reviews.

The target audience, while inclusive of all AGA members, will focus on issues that are important to clinicians, researchers, physicians in training, international members, women and under-represented minorities. A specific goal is to ensure the AGA’s pre-eminent role of serving the needs of practicing gastroenterologists and hepatologists.

In this issue of AGA Perspectives we highlight several key “hot button” practice topics. John Allen, MD, covers adapting to the rapidly changing landscape of health care, with key advice on adapting to new models of accountable care. Several articles discuss models of care for this new world, including integration of physician assistants and nurse practitioners, expansion of nonprocedural services, and organization into large “mega” groups.

Quality improvement remains a key theme for many articles including ways to monitor quality through procedure logs. Fortunately, many electronic endoscopy reporting systems and the AGA tools such as the AGA Digestive Health Outcomes Registry make this easy. Joseph Kolars, MD, gives us inspiration on our role in global health improvement. Lastly, we have a lively and clinically relevant debate on the role of follow-up endoscopy after diagnosis of severe erosive esophagitis.

Michael B. Wallace, MD, MPH
EDITOR
TREATING EROSIvE REFLUX ESOPHAGITIS

GIs discuss the benefits and cautions of repeat endoscopy testing.

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The Case For Repeat Upper Endoscopy
by Diana Orbelo, PhD, and Yvonne Romero, MD

When is it worthwhile to repeat an upper endoscopy in patients with Los Angeles (LA) grade C or D erosive reflux esophagitis? The answer depends largely on your perspective regarding the value of early detection of Barrett’s esophagus. We assert that it is important to know if an individual has Barrett’s esophagus. In otherwise healthy patients, diagnosis of Barrett’s esophagus prompts surveillance with the expectation that if an individual is destined to develop esophageal adenocarcinoma, we can intervene when they have early stage disease. Identification of early stage disease, be it high grade dysplasia or superficial cancer, allows us to offer potentially curative procedures such as resection, topical ablative therapy (like radiofrequency ablation and cryotherapy), or if need be, esophagectomy. Diagnosis and surveillance of Barrett’s esophagus becomes even more relevant when considering the increased incidence of esophageal adenocarcinoma in developed countries.¹

Our recommendation to perform repeat endoscopy following a minimum of eight weeks proton pump inhibitor (PPI) therapy for those with LA grade C or D esophagitis is based on four retrospective studies²-⁵ and one prospective study, conducted at our institution, which is currently under review for publication.⁶ Our dear friend and colleague, Dr. Sonnenberg, may argue that in the retrospective studies, most of the Barrett’s detected were short in length, and likely represented a combined pool of subjects with short segment Barrett’s esophagus (SSBE) along with those only having intestinal metaplasia of the cardia (IMC). This argument is understandable given that those with IMC (a scenario in which the zig-zag line is biopsied, finding intestinal metaplasia with goblet cells on histology) have a cancer risk similar to that of the general population (three to four people/100,000 people per year).⁷,⁸ Alternatively, patients with salmon-colored mucosa in the tubular esophagus of at least one centimeter length, with intestinal metaplasia with goblet cells at histology (i.e. short- and long-segment Barrett’s esophagus) have a much greater neoplastic risk (3 to 10 percent cumulative incidence/lifetime risk) if they live long enough, and do not die from competing causes (like auto accidents and coronary artery disease).

Since 2008, as an effort to standardize our clinical endoscopy practice as part of our division’s

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The Case Against Repeat Upper Endoscopy
by Amnon Sonnenberg, MD, MSc

Goals of GERD management

The primary goal in treatment of gastro-esophageal reflux disease (GERD) is relief of symptoms. Symptoms drive the patient to see a physician and seek medical help. Once I know that a given patient has reflux esophagitis as cause of symptoms, the esophagitis itself or its severity are only of secondary relevance in disease management. In general, patients with erosive esophagitis tend to have more severe symptoms than patients with non-erosive reflux disease (NERD), and patients with severe erosive esophagitis (LA grade C or D) tend to have more severe symptoms than patients with mild erosive esophagitis (LA grade A or B). However, it is not uncommon to see patients complain of continuous heartburn and excruciating sharp stabbing epigastric pain without any mucosal breaks on endoscopy. The association between severity of symptoms and mucosal damage is relatively weak and applies only to the entirety of reflux patients. In the individual patient, symptom characteristics do not allow one to predict with any certainty the presence or grade of erosive esophagitis.1

A secondary goal in the management of GERD is prevention of esophageal adenocarcinoma. During the first endoscopy, I want to make sure that the patient does not have Barrett’s esophagus with low- or high-grade dysplasia and esophageal adenocarcinoma. Once I have obtained such information through the first endoscopy, there is no need for a second endoscopy. The presence of extensive mucosal breaks can compromise the assessment of histopathology, as it may become

CONTINUED ON PAGE 7
In the randomized, prospective, parallel design, open-label, single-center study of consecutive adult outpatients with LA Grade C or D esophagitis were allocated to a PPI once per day, taken either in the morning or at night, for eight weeks. Esophagogastroduodenoscopy (EGD) and validated self-report symptom questionnaires were completed at baseline and follow-up. Biopsies were only obtained when salmon-colored mucosa in the tubular esophagus of at least 1 cm length was detected, raising clinical suspicion for Barrett’s esophagus. Ninety-two of 128 (72 percent) eligible subjects participated [64 (70 percent) male, mean age 58 years (range 19-86), median BMI 29 (range 21-51), 58 C: 34 D]. Eighty (87 percent) subjects completed the study and had a follow up EGD. Overall, 14 percent of subjects met stringent criteria for Barrett’s esophagus with over half having long (greater than 3 cm in length) segment disease. Notably, in over half of these cases, the diagnosis of Barrett’s esophagus would have been missed if no post-PPI research follow-up endoscopy had been done. Thus our primary argument for repeat endoscopy is that the presence of erosive esophagitis may cause us to miss a diagnosis of Barrett’s esophagus, an assertion consistent with clinical practice guidelines published by the American College of Physicians.

Further arguments include the fact that overlying mucosal injury may heal before accurate measurements of the Barrett’s esophagus extent can be made and hence, before a full collection of surveillance biopsies obtained along the entire extent of the Barrett’s segment. In theory, the resolution of gross inflammation will reduce the chance of reactive atypia being over-interpreted as dysplasia by our colleagues in pathology.

We understand the importance of reducing health-care costs and eliminating unnecessary procedures. Nonetheless, repeat endoscopy is indicated in individuals with C or D esophagitis, and particularly those with unintentional weight loss, dysphagia that does not resolve with PPI therapy, recurrent emesis, anemia or bleeding. Endoscopy in these individuals is important to rule out underlying malignancy, and potentially to dilate any pyloric or esophageal stenosis. Finally, symptoms are not clinically reliable in detecting the presence of severe esophagitis, nor its resolution. Therefore, endoscopy is required in patients with LA grade C or D erosive esophagitis after at least eight weeks PPI therapy to assure the esophagitis has healed and to exclude or characterize underlying Barrett’s esophagus.

... endoscopy is required in patients with LA grade C or D erosive esophagitis after at least eight weeks PPI therapy to assure the esophagitis has healed and to exclude or characterize underlying Barrett’s esophagus.
CONTINUED FROM PAGE 5

difficult for the pathologist to differentiate between reparative changes associated with the erosive esophagitis and true dysplasia of an underlying Barrett’s esophagus. To rule out the presence of dysplasia, therefore, it would be advisable to take biopsies inside the Barrett’s mucosa, but far away from the erosive lesion itself. In any such instance, the need for repeat endoscopy would be determined by the presence of Barrett’s metaplasia rather than LA grade C or D erosive reflux esophagitis.

Repeat endoscopy has no therapeutic consequence

For the vast majority of GERD patients, the disease presents itself at the onset already with the most severe appearance to which it will eventually progress. The principle of WYSIWYG applies to the first endoscopy: what you see is what you get. In a given patient it would be extremely uncommon for GERD to present itself first as NERD, then advance through various grades of erosive esophagitis to finally end in a stricture or lengthy Barrett’s esophagus. The only prognostic relevance of the first endoscopy relates to the initial appearance of the reflux esophagitis. Most likely it will not progress beyond this stage. Outside the surveillance of Barrett’s esophagus, endoscopy plays no role in the prevention of any future progression of the initial esophagitis to develop more extensive erosions or even strictures.

After I have diagnosed the reflux esophagitis, I will treat it with the most potent therapy available to me. I will use a twice-daily dose of a proton pump inhibitor (PPI). Depending on the endoscopic appearance of the esophageal lesions, presence of a large hiatal hernia and other risk factors, such as overweight or cigarette consumption, I will use a dose of 20 or 40 mg twice daily. The therapy will need to last for at least eight to 12 weeks. If I start the patient on 40 mg twice daily, I may subsequently try to reduce the dose to 20 mg twice daily and keep the patient on such maintenance therapy for an indefinite time period. Surgical fundoplication does not provide better relief of symptoms or mucosal healing than antisecretory medication. Surgery actually works best in patients who respond to antisecretory medication. My patient’s response to therapy will be assessed by relief of symptoms. In general, if the symptoms subside under therapy, eventually mucosal healing will follow symptom relief. If the patient responds symptomatically, the appearance of the mucosal lesion and its reaction to therapy would not provide me with any additional guidance and would be of little if any therapeutic consequence. Truth be told, since I have started treatment with the best tool available to me, I have little else to offer.

Management of treatment failure

What if the symptoms failed to respond to therapy? First, I would want to make sure that the patient takes the medication properly as prescribed. I advise my patients to take their PPI medication 20 to 30 minutes before the first and last meal of the day and finish their last meal at least four hours before nighttime rest. In rare instances, I switch to a different type of PPI or, in very rare instances where patients fail PPI medication altogether, to a histamine-2 receptor antagonist. If all such measures fail, I want to rule out any underlying Zollinger-Ellison syndrome causing gastric hypersecretion that only responds to excessively high doses of PPI and would be best treated by surgery. I may order a pH-metry to objectively assess the influence of the antisecretory medication on intraesophageal pH-values. As a last measure, I may also schedule a repeat endoscopy to assess mucosal healing. In a patient with mucosal healing but persistent symptoms, in order to explain the discrepancy between symptoms and healing, I would take the negative endoscopy result as the starting point of a search for other potential causes associated with persistent pain, such as heart, lung and mediastinal disease, esophageal dysmotility, or any undiagnosed illness of the upper gastrointestinal tract.

Summary

In conclusion, I would not use endoscopy for routine follow-up of patients with erosive esophagitis. Unlike the colonoscopy, the first upper endoscopy is very unlikely to miss any significant lesions that a repeat endoscopy could potentially bring to light. Except for confirming the diagnosis and assessing its severity, the endoscopic findings carry little therapeutic consequence. From a patient’s perspective, the endoscopy is expensive, time consuming and unpleasant. A repeat endoscopy unnecessarily complicates the management of a well-treatable disease without providing any benefits in preventing disease progression or future complications.

REFERENCES


Implementation of the Affordable Care Act (ACA) is progressing rapidly and is focused on two major goals; reining in the high cost of health care and improving quality of care through care coordination, particularly for patients with complex or chronic conditions. New delivery systems and payment models are transitioning reimbursement from fee-for-service to value-based reimbursement. Importantly, all gastroenterology practices — regardless of whether they are explicitly participating in an accountable care organization, patient-centered home or remain in a traditional consultative role — are at risk for financial penalties because of payment changes contained within the ACA. Physicians and practices that fail to implement e-prescribing, meet requirements of meaningful use and report for Physician Quality Reporting System (PQRS) are guaranteed an 8 percent reduction to their total Medicare billings by 2017. Threats to colonoscopy reimbursement due to ongoing review by the Relative Value Update Committee (RUC) make an already vulnerable future for gastroenterologists even more difficult.

JOHN I. ALLEN, MD, MBA, AGAF
Yale University School of Medicine
There is hope and there are ways that practices can improve their financial future and their care of patients. AGA is dedicated to helping gastroenterologists not only survive — but thrive — in this era of change. AGA’s Roadmap to the Future of GI provides clinicians with tools to deliver high-value care, demonstrate quality and maximize reimbursement. Tools of interest include:

**New clinical service lines for IBD, CRC and HCV care**

AGA has developed a compendium of tools all contained within “Clinical Service Lines” (CSL) that are published in part in our journals and also on the AGA website. Each CSL is unique for a single condition and links evidence-based guidelines, performance measures, decision support and other practice management tools, in a single toolkit.

**New clinical practice guidelines and clinical care algorithms employing GRADE methodology**

AGA will release clinical practice guidelines based on available, high-quality clinical evidence using a new clinical practice guideline development process based on the Grades of Recommendation Assessment, Development and Evaluation (GRADE) system — an internationally recognized, transparent approach to grading quality of evidence and strength of recommendations. In addition to publishing several guidelines each year, AGA will develop concurrent clinical care algorithms that can be accessed at the point of care.

**Physicians and practices that fail to implement e-prescribing, meet requirements of meaningful use and report for Physician Quality Reporting System (PQRS) are guaranteed an 8 percent reduction to their total Medicare billings by 2017.**

**Innovative strategies to expand service offerings and boost revenue**

AGA has unique ways to expand clinical practice offerings by developing “nonprocedural business lines” such as nutrition, women’s services and geriatrics. Learn more in the article by Dr. Kosinski on page 11.

**Bundled payment models**

AGA has developed a bundled payment model that defines all pertinent elements within an “episode” of screening colonoscopy. This model will provide members with the coding definitions, quality metrics and other elements needed to negotiate a contracted colonoscopy bundle and might be used in conversations with health plans, self-insured employers and regional accountable care organizations.

**AGA Digestive Health Outcomes Registry®**

The AGA Digestive Health Outcomes Registry provides the infrastructure to collect, compare, analyze and report on clinical data for colonoscopy and care of IBD patients thus supporting payor incentive programs and performance-based initiatives. Practices can generate quality reports to identify practice strengths and weaknesses and evaluate performance and outcomes data.

**AGA Digestive Health Recognition Program™**

The AGA Digestive Health Recognition Program is a fast, fully-integrated way to gain Bridges to Excellence recognition for providing superior care and in addition allows practices to meet CMS PQRS reimbursements. This simple Web-based data entry program is based on physicians extracting data and answering questions from a small number of consecutive patients with IBD and in many ways is a simpler way to gain recognition than current registries. In short order this will be linked to ABIM Maintenance of Certification and Practice Improvement Modules requirements making this program especially attractive due to its ease of use and the ability to satisfy requirements from several programs simultaneously.

The AGA has developed practical and educational tools to assist members in understanding and confronting the mounting changes under health-care reform and will continue to help our clinician members in their drive to improve and demonstrate the value of the care they provide patients.
What Are PAs and NPs, and What Can They Offer You?

Kadee Watkins, NPAS, PA-C
Physician Assistant, Minnesota Gastroenterology, P.A.

Ms. Watkins has no conflicts to disclose.

I have spent my entire 10-year career as a physician assistant (PA) with Minnesota Gastroenterology and have had the opportunity to practice in a variety of settings, including clinics (general and subspecialty) and on the in-patient service at several hospitals. In addition, I serve in an administrative role for the practice and on the AGA Institute Education and Training Committee and the Advisory Board for the AGA Academy of Educators. It was challenging for me early in my career because our physicians and practice administration had not yet learned how to utilize PAs and nurse practitioners (NPs) in the most efficient and professionally satisfying manner. Despite these challenges, we all worked together to develop a relationship that now is professionally rewarding, economically sustainable and beneficial for our patients.

PAs and NPs are more valuable than ever to a GI practice as health-care reform progresses and reimbursement rates fall. PAs and NPs are skilled medical professionals who can offer high-quality patient care in both the clinic and hospital setting. PAs and NPs assess and triage patients, perform physical exams, order and interpret diagnostic tests, initiate and manage treatment plans, prescribe medications, and provide patient education. Their training and focus is on providing patient care within a close-knit team led by the gastroenterologist. Their role is much more than an assistant and scribe when physicians understand their potential. The challenge for GI practices is to develop appropriate roles where all professionals practice at the “top of their license.”

PA training is modeled after physician education with programs accepting candidates from a variety of backgrounds, offering a master’s degree upon completion and the skill set to practice autonomously within the structure of a team with a physician. To practice medicine, a PA must pass the national certification exam, meet individual state requirements for licensing and have an identified supervising physician.

NP training follows a nursing model of education offering either a master’s or doctoral degree upon completion with the requirement that all candidates be a registered nurse (RN). NPs must pass a national certification exam and practice under the rules and regulations of the state in which they are licensed.

State laws pertaining to PAs and NPs vary, but both have similar practice abilities and are able to offer similar benefits to a GI practice. PAs must practice medicine with the supervision of a licensed physician either on site or via some means of telecommunication and must develop a delegation agreement where the physician is able to delegate prescriptive authority, as well as scope of practice. In some states, NPs are able to practice medicine independently, and in others they are required to have a collaborative agreement or delegation agreement with a physician, similar to that required for PAs. PAs and NPs are authorized to prescribe medications in all 50 states and are recognized by the Centers for Medicare & Medicaid Services (CMS) as reimbursable health-care providers, with services provided reimbursed at 85 percent of the physician fee schedule.

The addition of a PA or NP to a GI practice can improve both clinic and endoscopy access since it offers an additional provider for both new consults and established patient visits at a cost to the practice that is lower than the cost of recruiting and paying a physician. Along with direct reimbursable billing, a PA and NP can free up gastroenterologists’ time in clinics with more time available in the endoscopy suite. The practice structure for a PA or NP is variable based upon the specific needs of a GI practice.

Many practices have developed subspecialty clinics such as hepatology, IBD, functional GI disorders and esophageal disorders, to name a few. A focus on a specific subspecialty offers a unique opportunity for PAs and NPs to work closely with physicians and collaborate in the management of complex patients. Subspecialty clinics with strong physician involvement allow PAs and NPs to expand their knowledge base with emphasis on best practices and offer patients access to clinics designed to meet their individual needs.

Both PAs and NPs can be important members of an inpatient team partnering with physicians to manage new consults and follow-up patients. New consults in the hospital setting may be seen by and billed by the PA or NP independently, or in conjunction with a gastroenterologist. The rules and regulations concerning documentation requirements should be thoroughly understood by the physician to conform to CMS requirements. PAs and NPs may also answer nurse phone calls, coordinate patients’ plans of care with the hospitalist service and other consultants, arrange procedures, assure appropriate management of medications and co-morbidities before endoscopy, and educate patients and their families.

Minnesota Gastroenterology and AGA both have seen the benefit of including PAs and NPs in education and administrative roles. As a medical provider, I have been able to offer insight that differs from both administrators and physicians. Our unique skill set and experiences with patients is important in designing consultative services that are patient focused, high quality and efficient. In my role within the practice and on the committee, I have contributed to the development of best-practice guidelines, group practice policies, and orientation and training materials. As co-director of the 2013 AGA Principles of Gastroenterology for the Nurse Practitioner and Physician Assistant course, I have had the pleasure of working closely with AGA leadership to create an educational program that should be helpful and interesting to my colleagues.
Prepare to Thrive with Nonprocedural Business Lines

Every product or service has its own life cycle. Most businesses follow a typical cycle (see graph) — beginning with a development period, eventually leading to the deployment of a product or service. This is then followed by a phase during which the business struggles to take hold. If it is a solid business, early adopters drive its success, which results in a rapid growth phase with expanding margins and solid profits. Competition eventually enters, which compresses margins and profits. The lack of profit results in the decline of the business leading to either senescence or replacement with less expensive innovative products.

Medical services have life cycles as well. Any of you who have been in practice as long as I have will clearly realize this. We’ve all seen the rise and demise of certain procedures as technological change shapes the market. Colonoscopy is no exception. It has gone through a rapid growth phase triggered by the “Katie Couric effect” of the last decade and augmented by changes in reimbursement designed to cover preventative care. We are now in a mature period of the cycle for colonoscopy. Margin compression has resulted in less profit and there are multiple potentially less expensive replacements on the horizon.

It is therefore time to look for other nonprocedural business lines that will lend themselves to the risk-based changes that are developing as a result of health-care reform. How do we identify those businesses? We need to focus on the high-frequency services that bear the highest risk to the population.

The AGA Institute Practice Management and Economics Committee has been focusing on nonprocedural business lines since 2011. We identified several potential business lines that represent high-frequency/high-risk services and identified three experts in the field to provide their insight and advice.

Nutrition Services

The division of gastroenterology, hepatology and nutrition at the Medical College of Virginia campus of the Virginia Commonwealth University, Richmond, has a robust practice footprint in outpatient and inpatient nonprocedural nutritional support. In this publication, Jay Kuemmerle, MD, AGAF, interim chair of the division, provides an overview and roadmap for how and why the division redesigned their services, outlines the resources needed to be successful, and highlights the gains made for their practice.

GI Geriatric Services

Karen Hall, MD, PhD, of the East Ann Arbor Health and Geriatric Center, Michigan, summarizes the work she has been doing at the University of Michigan Health System in conjunction with her primary care colleagues. By developing a model within a multispecialty geriatric clinic at the health system, Dr. Hall and her colleagues have enabled gastroenterologists to provide nonprocedural care while triaging patients for endoscopy and other procedures. This “one-stop” specialty and primary care department was created by providers with the interest and expertise to help meet patient demand.

Women’s Health Services

While men and women are affected equally by digestive disorders, women often have specific and unique medical issues that require an integrative, multidisciplinary approach to treatment. Kimberly M. Persley, MD, realized early in her practice that digestive health issues may affect women differently and women are often willing to wait longer for an office visit to be seen by a woman. In her discussion, Dr. Persley will tell us about the challenges that exist in building a GI women’s health program in a private practice setting at Texas Digestive Disease Associates in Dallas.

Gastroenterologists have enjoyed a wonderful period of stability with respect to our endoscopic services; however, we are probably too dependent upon their revenue. They are now under market pressures and are threatened by technological advances that will, in the end, result in declines in reimbursement and utilization. Change can be an opportunity. It’s time to embrace the future and adapt.
DEXILANT WORKS A SECOND SHIFT TO HELP SHUT DOWN ACID PUMPS

Conclusions of comparative efficacy cannot be drawn from this information.

96% OF 24-HOUR PERIODS REMAINED HEARTBURN FREE IN A 6-MONTH STUDY

Overall treatment: Median percentage of 24-hour heartburn-free periods of the maintenance of healed EE study vs 29% with placebo. Secondary efficacy endpoint, p<0.0025.1,2

DEXILANT 30 mg (n=132), Placebo (n=141)

DEXILANT 30 mg provides effective maintenance of EE healing

- 66% of patients remained healed over 6 months with DEXILANT 30 mg (n=125) vs 14% with placebo (n=119; p<0.00001). Study primary endpoint.1,2

Results of a 6-month, multicenter, double-blind, placebo-controlled, randomized study of patients who had successfully completed an EE study and showed endoscopically confirmed healed EE. Based on crude-rate estimates, patients who did not have endoscopically documented relief and prematurely discontinued were considered to have relapsed.

Indications for DEXILANT (dexlansoprazole)

- Healing all grades of erosive esophagitis (EE) for up to 8 weeks
- Maintaining healing of EE and relief of heartburn for up to 6 months
- Treating heartburn associated with symptomatic non-erosive gastroesophageal reflux disease (GERD) for 4 weeks

Important Safety Information

- DEXILANT is contraindicated in patients with known hypersensitivity to any component of the formulation. Hypersensitivity and anaphylaxis have been reported with DEXILANT use.
- Symptomatic response with DEXILANT does not preclude the presence of gastric malignancy.
- PPI therapy may be associated with increased risk of Clostridium difficile associated diarrhea.
- Long-term and multiple daily dose PPI therapy may be associated with an increased risk for osteoporosis-related fractures of the hip, wrist, or spine. Patients should use the lowest dose and shortest duration of PPI therapy appropriate to the condition being treated.
- Hypomagnesemia has been reported rarely with prolonged treatment with PPIs.
- Most commonly reported adverse reactions were diarrhea (4.6%), abdominal pain (4.0%), nausea (2.9%), upper respiratory tract infection (1.9%), vomiting (1.8%), and flatulence (1.6%).
- Do not co-administer atazanavir with DEXILANT because atazanavir systemic concentrations may be substantially decreased. DEXILANT may interfere with absorption of drugs for which gastric pH is important for bioavailability (e.g., amoxicillin esters, digoxin, iron salts, ketoconazole). Patients taking concomitant warfarin may require monitoring for increases in international normalized ratio (INR) and prothrombin time. Increases in INR and prothrombin time may lead to abnormal bleeding and even death. Concomitant taurocholic use may increase taurocholic whole blood concentrations. DEXILANT may increase serum levels of methotrexate. Please see adjacent brief summary of prescribing information for DEXILANT.


DEXILANT works with a dual delayed release formulation

Granule 1 begins releasing drug within an hour of dosing

Granule 2 provides a second release of drug with another peak concentration several hours after dosing

Artistic rendition of granules.
BRIEF SUMMARY OF FULL PRESCRIBING INFORMATION
DEXILANT (dexlansoprazole) delayed-release capsules for oral use

INDICATIONS AND USAGE
DEXILANT is indicated for:
- healing of all grades of erosive esophagitis (EE) for up to 8 weeks
- maintaining healing of EE and relief of heartburn for up to 6 months
- the treatment of heartburn associated with symptomatic non-erosive gastroesophageal reflux disease (GERD) for 4 weeks

CONTRAINDICATIONS
DEXILANT is contraindicated in patients with known hypersensitivity to any component of the formulation. Hypersensitivity and anaphylaxis have been reported with DEXILANT use [see Adverse Reactions].

WARNINGS AND PRECAUTIONS
Gastric Malignancy
Symptomatic response with DEXILANT does not preclude the presence of gastric malignancy.

Clostridium Difficile Associated Diarrhea
Published observational studies suggest that PPI therapy like DEXILANT may be associated with an increased risk of Clostridium difficile associated diarrhea, especially in hospitalized patients. This diagnosis should be considered for diarrhea that does not improve [see Adverse Reactions].

Patients should use the lowest dose and shortest duration of PPI therapy appropriate to the condition being treated.

Bone Fracture
Several published observational studies suggest that PPI therapy may be associated with an increased risk for osteoporosis-related fractures of the hip, wrist or spine. The risk of fracture was increased in patients who received high-dose, defined as multiple daily doses, and long-term PPI therapy (≥1 year). Patients should use the lowest dose and shortest duration of PPI therapy appropriate to the conditions being treated. Patients at risk for osteoporosis-related fractures should be managed according to established treatment guidelines [see Adverse Reactions].

Hypomagnesemia
Hypomagnesemia, symptomatic and asymptomatic, has been reported rarely in patients treated with PPIs for at least three months, in most cases after a year of therapy. Serious adverse events include tetany, arrhythmias, and seizures. In most patients, treatment of hypomagnesemia required magnesium replacement and discontinuation of the PPI.

For patients expected to be on prolonged treatment or who take PPIs with medications such as digoxin or drugs that may cause hypomagnesemia (e.g., diuretics), health care professionals may consider monitoring magnesium levels prior to initiation of PPI treatment and periodically [see Adverse Reactions].

Concomitant use of DEXILANT with Methotrexate
Literature suggests that concomitant use of PPIs with methotrexate (primarily at high dose; see methotrexate prescribing information) may elevate and prolong serum levels of methotrexate and/or its metabolite, possibly leading to methotrexate toxicities. In high-dose methotrexate administration, a temporary withdrawal of the PPI may be considered in some patients [see Drug Interactions].

ADVERSE REACTIONS
Clinical Trials Experience
Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

The safety of DEXILANT was evaluated in 4548 patients in controlled and uncontrolled clinical studies, including 863 patients treated for at least 6 months and 203 patients treated for one year. Patients ranged in age from 18 to 90 years (median age 48 years), with 54% female, 85% Caucasian, 8% Black, 4% Asian, and 3% other races. Six randomized controlled clinical trials were conducted for the treatment of EE, maintenance of healed EE, and symptomatic GERD, which included 896 patients on placebo, 455 patients on DEXILANT 30 mg, 2218 patients on DEXILANT 60 mg, and 1363 patients on Lansoprazole 30 mg once daily.

Most Commonly Reported Adverse Reactions
The most common adverse reactions (≥2%) that occurred at a higher incidence for DEXILANT than placebo in the controlled studies are presented in Table 2.

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>Placebo (N=896)</th>
<th>DEXILANT 30 mg (N=455)</th>
<th>DEXILANT 60 mg (N=2218)</th>
<th>DEXILANT Total (N=2621)</th>
<th>Lansoprazole 30 mg (N=1363)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhea</td>
<td>2.9%</td>
<td>5.1%</td>
<td>4.7%</td>
<td>4.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Abdominal Pain</td>
<td>3.5%</td>
<td>3.5%</td>
<td>4.0%</td>
<td>4.0%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Nausea</td>
<td>2.6%</td>
<td>3.3%</td>
<td>2.8%</td>
<td>2.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Upper Respiratory Tract Infection</td>
<td>0.8%</td>
<td>2.9%</td>
<td>1.7%</td>
<td>1.9%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Vomiting</td>
<td>0.8%</td>
<td>2.2%</td>
<td>1.4%</td>
<td>1.6%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Flatulence</td>
<td>0.6%</td>
<td>2.6%</td>
<td>1.4%</td>
<td>1.6%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Table 2: Incidence of Adverse Reactions in Controlled Studies

Adverse Reactions Resulting in Discontinuation
In controlled clinical studies, the most common adverse reaction leading to discontinuation from DEXILANT therapy was diarrhea (0.7%).

Other Adverse Reactions
Other adverse reactions that were reported in controlled studies at an incidence of less than 2% are listed below by body system.

Blood and Lymphatic System Disorders: anemia, lymphadenopathy
Cardiac Disorders: angina, arrhythmia, bradycardia, chest pain, edema, myocardial infarction, palpitation, tachycardia
Ear and Labyrinth Disorders: ear pain, tinnitus, vertigo
Endocrine Disorders: gout
Eye Disorders: eye irritation, eye swelling
Gastrointestinal Disorders: abdominal discomfort, abdominal tenderness, abnormal feces, anal discomfort, Barrett’s esophagus, bezoar, bowel sounds abnormal, breath odor, colitis, systemic involvement, colonic polyp, constipation, dry mouth, duodenitis, dyspepsia, dysphagia, enteritis, esophagitis, gastric polyp, gastritis, gastroenteritis, gastrointestinal disorders, gastrointestinal hypermotility disorders, GERD, GI ulcers and perforation, hematemesis, hematochezia, hemorrhoids, impaired gastric emptying, irritable bowel syndrome, mucus stools, oral mucosal blistering, painful defecation, proctitis, parasthesia oral, rectal hemorrhage, retching
General Disorders and Administration Site Conditions: adverse drug reaction, asthenia, chest pain, chills, feeling abnormal, inflammation, mucosal inflammation, nodule, pain, pyrexia
Hepatobiliary Disorders: bilirubin, cholelithiasis, hepatomegaly
Immunologic System Disorders: hypersensitivity
Infections and Infestations: candida infections, influenza, nasopharyngitis, oral herpes, pharyngitis, sinusitis, viral infection, vulvo-vaginal infection
Injury, Poisoning and Procedural Complications: falls, fractures, joint sprain, overdose, procedural pain, sunburn
Laboratory Investigations: ALP increased, ALT increased, AST increased, bilirubin decreased/increased, blood creatinine increased, blood gastrin increased, blood glucose increased, blood potassium increased, liver function test abnormal, platelet count decreased, total protein increased, weight increase
Metabolism and Nutrition Disorders: appetite changes, hypercalcemia, hypokalemia
Musculoskeletal and Connective Tissue Disorders: arthralgia, arthritis, muscle cramps, musculoskeletal pain, myalgia
Nervous System Disorders: altered taste, convulsion, dizziness, headaches, migraine, memory impairment, paresis, psychomotor hyperactivity, tremor, trigeminal neuralgia
Psychiatric Disorders: abnormal dreams, anxiety, depression, insomnia, libido changes
Renal and Urinary Disorders: dysuria, micturition urgency
Reproductive System and Breast Disorders: dysmenorrhea, dyspareunia, menorrhagia, menstrual disorder
Respiratory, Thoracic and Mediastinal Disorders: aspiration, asthma, bronchitis, cough, dyspnea, hiccup, hyperventilation, respiratory tract congestion, sore throat
Skin and Subcutaneous Tissue Disorders: acne, dermatitis, erythema, pruritis, rash, skin lesion, urticaria
Vascular Disorders: deep vein thrombosis, hot flush, hypertension

Additional adverse reactions that were reported in a long-term uncontrolled study and were considered related to DEXILANT by the treating physician included: anaphylaxis, auditory hallucination, B-cell lymphoma, bursts, central obesity, cholecystitis acute, dehydration, diabetes mellitus, dysphonia, epistaxis, folliculitis, goit, herpes zoster, hyperlipidemia, hypothyroidism, increased neutrophils, MICH decrease, neutropenia, rectal tenesmus, restless legs syndrome, somnolence, tinnitus.

Other adverse reactions not observed with DEXILANT, but occurring with the racemate Lansoprazole can be found in the Lansoprazole prescribing information, ADVERSE REACTIONS section.

Postmarketing Experience
The following adverse reactions have been identified during post-approval of DEXILANT. As these reactions are reported voluntarily from a population of
lansoprazole and its metabolites are present in rat milk following the administration of lansoprazole. As many drugs are excreted in human milk, and because of the potential for tumorigenicity shown for lansoprazole in rat carcinogenicity studies (see Nonclinical Toxicology), a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**
Safety and effectiveness of DEXILANT in pediatric patients (less than 18 years of age) have not been established.

**Geriatric Use**
In clinical studies of DEXILANT, 11% of patients were aged 65 years and over. No overall differences in safety or effectiveness were observed between these patients and younger patients, and other reported clinical experience has not identified significant differences in responses between geriatric and younger patients, but greater sensitivity of some older individuals cannot be ruled out.

**Rein Impairment**
No dosage adjustment of DEXILANT is necessary in patients with renal impairment. The pharmacokinetics of dexlansoprazole in patients with renal impairment are not expected to be altered since dexlansoprazole is extensively metabolized in the liver to inactive metabolites, and no parent drug is recovered in the urine following an oral dose of dexlansoprazole.

**Hepatic Impairment**
No dosage adjustment for DEXILANT is necessary for patients with mild hepatic impairment (Child-Pugh Class A). DEXILANT 30 mg should be considered for patients with moderate hepatic impairment (Child-Pugh Class B). No studies have been conducted in patients with severe hepatic impairment (Child-Pugh Class C).

**OVERDOSAGE**
There have been no reports of significant overdose of DEXILANT. Multiple doses of DEXILANT 120 mg and a single dose of DEXILANT 300 mg did not result in death or other severe adverse events. However, serious adverse events of hypertension have been reported in association with twice daily doses of DEXILANT 60 mg. Non-serious adverse reactions observed with twice daily doses of DEXILANT 60 mg include hot flashes, contusion, oropharyngeal pain, and weight loss. Dexlansoprazole is not expected to be removed from the circulation by hemodialysis. If an overdose occurs, treatment should be symptomatic and supportive.

**CLINICAL PHARMACOLOGY**
**Pharmacodynamics**
Serum Gastrin Effects
The effect of DEXILANT on serum gastrin concentrations was evaluated in approximately 3640 patients in clinical trials up to 8 weeks and in 1023 patients for up to 6 to 12 months. The mean fasting gastrin concentrations increased from baseline during treatment with DEXILANT 30 mg and 60 mg doses. In patients treated for more than 6 months, mean serum gastrin levels increased during approximately the first 3 months of treatment and were stable for the remainder of treatment. Mean serum gastrin levels remained to pre-treatment levels within one month of discontinuation of treatment.

**Enterochromaffin-Like Cell (ECL) Effects**
There were no reports of ECL cell hyperplasia in gastric biopsy specimens obtained from 653 patients treated with DEXILANT 30 mg, 60 mg or 90 mg for up to 12 months. During lifetime exposure of rats dosed daily with up to 150 mg per kg per day of lansoprazole, marked hypergastrinemia was observed followed by ECL cell proliferation and formation of carcinoid tumors, especially in female rats [see Nonclinical Toxicology].

**Effect on Cardiac Repolarization**
A study was conducted to assess the potential of DEXILANT to prolong the QT/QTc interval in healthy adult subjects. DEXILANT doses of 90 mg or 300 mg did not delay cardiac repolarization compared to placebo. The positive control (moxifloxacin) produced statistically significantly greater mean maximum and time-averaged QT/QTc intervals compared to placebo.

**NONCLINICAL TOXICOLOGY**
**Carcinogenesis, Mutagenesis, Impairment of Fertility**
The carcinogenic potential of dexlansoprazole was assessed using lansoprazole studies. In two 24-month carcinogenicity studies, Sprague-Dawley rats were treated orally with lansoprazole at doses of 5 to 150 mg per kg per day, about 1 to 40 times the exposure on a body surface (mg/m²) basis (1.5 to 150 kg person of average height 1.46 m² body surface area (BSA)) given the recommended human dose of lansoprazole 30 mg per day. Lansoprazole produced dose-related gastric ECL cell hyperplasia and ECL cell carcinoids in both male and female rats [see Clinical Pharmacology]. In rats, lansoprazole also increased the incidence of intestinal metaplasia of the gastric epithelium in both sexes. In male rats, lansoprazole produced a dose-related increase of testicular interstitial cell adenomas. The incidence of these adenomas in rats receiving doses of 15 to 150 mg per kg per day.
Advise the patient to immediately report and seek care for any cardiovascular or [see Warnings and Precautions]

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**Journal Editors’ Picks**

**CGH FOR AUGUST**

**Presentation, Diagnosis and Management of Achalasia**  
By John E. Pandolfino, et al.

**Sacccharomyces Boulardii Does Not Prevent Relapse of Crohn’s Disease**  
By Arnaud Bourreille, et al.

**Cyst Features and Risk of Malignancy in Intraductal Papillary Mucinous Neoplasms of the Pancreas: A Meta-analysis**  
By Neeraj Anand, et al.

**Translating Improved Quality of Care into an Improved Quality of Life for Patients With Inflammatory Bowel Disease**  
By Corey A. Siegel, et al.

**Internet Liability for Gastroenterologists: Select Issues From Social Networking to Doctor Rating Sites**  
By Jessica M. Belle, et al.

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**GASTRO FOR AUGUST**

**Peroral Endoscopic Myotomy for the Treatment of Achalasia: An International Prospective Multicenter Study**  
By Daniel Von Renteln, et al.

**Impact of Endoscopic Surveillance on Mortality From Barrett’s Esophagus-Associated Esophageal Adenocarcinomas**  
By Douglas A. Corley, et al.

**No Effects of Gluten in Patients With Self-Reported Non-Celiac Gluten Sensitivity Following Dietary Reduction of Low-Fermentable, Poorly-Absorbed, Short-Chain Carbohydrates**  
By Jessica R. Biesiekierski, et al.

**Young Women With Polycystic Liver Disease Respond Best to Somatostatin Analogue: A Pooled Analysis of Individual Patient Data**  
By Tom J.G. Gevers, et al.

**Underestimation of Liver-Related Mortality in the United States**  
By Sumeet K. Asrani, et al.

**CGH FOR SEPTEMBER**

**Diagnosis and Treatment of Gastrointestinal Disorders in Patients With Primary Immunodeficiency**  
By Shradha Agarwal, et al.

**Coagulation in Liver Disease: A Guide for the Clinician**  
By Patrick G. Northup, et al.

**Uptake of Genetic Testing by Relatives of Lynch Syndrome Probands: A Systematic Review**  
By Ravi N. Sharaf, et al.

**Botulinum Toxin Reduces Dysphagia in Patients With Non-Achalasia Primary Esophageal Motility Disorders**  
By Tim Vanuytsel, et al.

**Index-Based Dietary Patterns and Risk of Esophageal and Gastric Cancer in a Large Cohort Study**  
By Wen-Qing Li, et al.

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**GASTRO FOR SEPTEMBER**

**Identification of Molecular Subtypes of Gastric Cancer with Different Responses to PI3-Kinase Inhibitors and 5-Fluorouracil**  
By Zhengdong Lei, et al.

**Efficacy and Safety of the Farnesoid X Receptor Agonist Obeticholic Acid in Patients With Type 2 Diabetes and Nonalcoholic Fatty Liver Disease**  
By Sunder Mudalier, et al.

**Effect of Carbonation on Brain Processing of Sweet Stimuli in Humans**  
By Francesco Di Salle, et al.

**Persistence of Non-Dysplastic Barrett’s Esophagus Identifies Patients at Lower Risk for Esophageal Adenocarcinoma: Results from A Large Multicenter Cohort**  
By Shyam Varadarajulu, et al.

**Equal Efficacy of Endoscopic and Surgical Cystogastrostomy for Pancreatic Pseudocyst Drainage in a Randomized Trial**  
By Shyam Varadarajulu, et al.
WHY?
The world of medicine is undergoing major changes, some of which are occurring rapidly. Unfortunately, physicians tend to resist change and when they do move forward, they move slowly. This paradigm has opened the door for physicians to seek out ways to come together in forming what is being coined as “mega-groups,” a growing phenomenon across many specialties.

Health reform calls for a monumental change in the way consumers, and their physicians, participate in their health care. Physicians must find means to adapt. Large groups provide for a physician-engaged, but professionally managed organization to bring together expertise and skill sets designed to forge the way through the mine field of change. While groups a decade ago were formed almost solely for leverage against managed care companies, the paradigm shift is now about how to partner with payors, employers and the community, locating a balance between a fair and reasonable reimbursement model with what physicians must give in return: quality, affordable health care with patient-centric outcomes. It is essential not to be a “one-trick pony” as a group and rely on endoscopy and pathology as your major income source.

**Reasons to come together as a large group practice:**

- Initiation of new ancillary programs and service lines — pathology, anesthesia, research, dietary, ultrasound imaging, GI hospitalists.
- Strategic positioning designed to enhance our ability to compete.
- First step in a plan for further integration, such as networks and ACOs.
- Develop economies of scale including consolidation of offices and on-call responsibilities.
- Improve succession planning: survival of the group in light of physician retirements.
- Additional coverage, specialties or sub-specialties to strengthen competitive advantage.

Why Should GIs Consider Joining a Mega-Group Practice?

Gary Luckman, MD
Digestive CARE, LLP
Dr. Luckman has no conflicts to disclose.
Increased negotiating clout (must reach critical mass in your locality).

Continued access to patients where such access is threatened.

Secure system referrals.

Establishment of Centers of Excellence — IBD, liver disease, esophageal disorders, anal rectal disorders, etc.

Attract capital.

Mega-groups will continue to come in all shapes and sizes. Digestive CARE, our group of 52 South-Florida gastroenterologists, has a central business unit that manages all aspects of the day-to-day operation in each of its 20 locations. An on-site manager or lead in each location is accountable to this central unit and must demonstrate that they execute on all of the directions and procedures set forth for the organization as a whole. While the physicians in the group are afforded the opportunity to provide input into various aspects of the organization via committees aligned with their particular interests, the group is physician owned and professionally managed. There is a managing board of partners and executive committee of physicians, each of which exist to democratically provide physician-owner oversight, strategic contributions and clinical perspective to the operation. Compliance-directed committees exist to ensure regulatory compliance at all levels, determine where outliers may exist and correct behavior for the good of the group. This latter aspect of collaboration has been the most rewarding in our group’s development. Certainly, after years of competing in a turbulent-at-best health-care marketplace like South Florida, the idea of sharing patients for better, and more cost effective, outcomes seemed like a stretch. However, being in the group with aligned goals and mindset shifts has allowed for physicians to release their primal instinct to protect that which is theirs — the coveted referring patterns and relationships developed in the community — and focus on their areas of interest, where they can further develop their skills, share interesting cases, debate clinical guidelines and best practices, and expand upon systematic means of educating and alerting one another as to patient-centric desired outcomes. These group internal forums have taken shape as centers of excellence, providing advanced diagnostic and therapeutic results for a subset of our patient base.

Challenges in the mega-group persist. The reform model necessitates recruiting and sustaining a talent pool of critical thinkers able to creatively leave behind the prior models of eat-what-you-kill, fee-for-service methodology and accept the challenge of collaboration, single specialty or multi-discipline, to effectively manage the whole patient. Unlike other industries and contrary to mainstream beliefs, there
is typically little profit margin in physician health care; therefore, these organizations must be formed to operate in an very lean and efficient manner. Managing expectations and perception of roles within the group is particularly challenging and recognizing the constant need to adapt, perpetuate change — often for the sake of change itself versus a broken pipeline — and keeping all parties informed of why you integrated and alter your model continuously are all crucial to success.

As a founding member of Digestive CARE, I learned early to be realistic. Group leaders need to have an understanding of the loss of physician control and involvement, and how it can impede the growth and success of the group if the physicians are not embraced and encouraged to participate and contribute in any area they feel interest and qualification. Group leaders need to remind physicians of the quality of life shift they will feel as part of a group, while they focus on the matters, clinical primarily, that they are skilled in and allow for the burdens of practice life to be dealt with by professionals trained in these processes. Group formation can be likened still to a progression of courting, dating, marriage and sometimes, unfortunately, divorce, as not all of us are meant to participate in something for the greater good. From my and most of the perspective of my partners however, the benefits outweigh the risks.

Overall, physicians have not been given credit for the vast amount of work done in recent years to correct the fragmented system of independent referrals and silo-driven care models. While not all physicians, consumers and markets are ready to jump head, let alone feet first into accountable care models, many groups already act in this regard, pooling finances, resources and talent to produce similar effects on their patient population. Sometimes you must walk before you run and so long as there is a “so what” question (“So what does this mean?” “So what is our goal?” “So what will this improve?” “So what does this say about us?”) asked by those moving toward integration, insuring there is purpose and measurable rewards for all of the relevant players and beneficiaries, then the movement should be deemed worthwhile and encouraged by all who are in a position to affect change in the health-care delivery system.
The Procedure Log: A Gastroenterologist’s Scorecard

Historically, gastroenterologists have been rewarded fiscally based upon procedure efficiency. The faster an endoscopy could be performed, the more patients a gastroenterologist could care for, and subsequently bill for. However, a major paradigm shift is on the horizon. Physicians will soon be judged by the quality of care they deliver, rather than the quantity. The best physicians will be determined by outcomes and performance metrics, rather than a lay magazine or W2 form.

Reimbursements will also likely be tied to objective measures of performance. As an analogy, I will use a professional baseball player. For almost a century, major league baseball has been keeping statistics on their players, such as batting average, runs batted in, homeruns, earned run average, etc. The better players invariably have better statistics and receive better compensation as a result. Furthermore, those players with outstanding statistics draw more fans to the stadium, sell more memorabilia and are more highly regarded by their peers. In fact, certain statistical benchmarks must be reached for a major leaguer to be considered for the hall of fame. The stats can also identify areas where a baseball player needs to improve. Yes, certain players have intangible characteristics like leadership that can’t be objectified, but by and large, statistics are vital to the baseball player. In the near future, quality assessment as measured by performance metrics will be critical for reimbursing practicing gastroenterologists. A procedure log is an excellent means to record performance data and should be used by every gastroenterologist.

A procedure log is an excellent means to record performance data and should be used by every gastroenterologist.

Eric Goldberg, MD
Associate Professor of Medicine, Director of Endoscopic Training and Research, University of Maryland, School of Medicine

Dr. Goldberg is a consultant for Olympus and Boston Scientific.

There are many benefits in starting to use a procedure log now, rather than waiting for government mandates. First, it is important to know that we perform our craft correctly. Certain performance benchmarks are established including cecal intubation rate, adenoma detection rate and withdrawal time. These can easily be incorporated into a procedure log and calculated.

Second, it is important to know that we perform procedures safely. Missed lesions, early complications and late complications are another metric that should be recorded and rates calculated. The best way to correct a deficiency is first to identify it. If bleeding or perforation rates are higher than the median, the procedure log can help identify this, determine why and address it. For example, a higher than expected perforation rate may be the result of a greater percentage of high risk polypectomies; but it could also be a consequence of poor technique. A few years ago, I detected a higher than expected bleeding rate following my endoscopic mucosal resections (EMR). I discussed my technique with one of my advanced endoscopy partners. He recommended that when I use argon plasma coagulation following EMR, I use it only on the border and not in the middle of the polypectomy site. Following this intervention, my post-EMR bleeding rates dropped substantially.

Third, accurately informing patients can be achieved using the procedure log. A patient may ask “how many endoscopic mucosal resections do you perform every
“Is the procedure log a reflection of you as a professional? Every year, you can convert your procedure log into a professional portfolio. Perhaps, this can be incorporated into an academic promotion portfolio along with teaching and clinical portfolios. It shows that you care about your performance, have nothing to hide, and are willing to proudly display your work.

Yes, it is true that a great doctor, like a great baseball player, has intangibles such as bedside manner that are difficult to quantify. However, becoming a GI hall of famer requires the accurate logging of your specific performance metrics.

Current research supports establishing a standard of 80 to 90 percent technical success before trainees are deemed competent.

### Classifieds

**COLORADO**

Digestive Health Associates, PC, in nationally acclaimed Durango, CO, is recruiting a board-certified, board-eligible gastroenterologist for long term employment and partnership in a very successful physician-owned medical group. This superb opportunity includes ownership in an AAHC accredited, ASGE-quality recognized ambulatory endoscopy center.

Quality schools, safe, smart, caring community. Skiing, cycling, kayaking, fly fishing, hunting, equestrian. Durango was rated by Outside Magazine as one of the “Top Ten Best Communities in which to live.”

Practice great medicine in a high-quality setting, with experienced partners you can enjoy and trust, be well paid and control your practice setting! You can have it all!

If interested, please contact Stephen Veals at sav@hcsas.org or 970-946-9416. Visit digestivehealth.net to learn more.

**Place GI Position Listings and Activity Announcements**

For as little as $82.50, you can place a classified ad of up to 100 words in AGA’s weekly email newsletter, AGA eDigest, or AGA’s bi-monthly magazine, AGA Perspectives. If you place ads in both AGA Perspectives and AGA eDigest, you will receive a 10 percent discount. Advertising in either includes a free online classified listing. Learn more by contacting Rachel Steigerwald at 301-272-1603 or email communications@gastro.org.

The deadline for the October/November 2013 issue is Aug. 13, 2013.
Gastroenterologists and Our Role in Global Health

Global health is an evolving concept of increasing relevance. Whereas tropical or international medicine tends to focus on diseases found in exotic or under-resourced regions of the world, global health looks more broadly at the social determinants of health that impact these diseases and the problems that arise from health inequity. With air travel and migrating populations, diseases cross geographical and cultural boundaries more readily than in the past. Therefore, global health issues are prominent in many areas of the U.S., particularly those with increased populations of those new to America from under-resourced areas of the world.

The surge of interest in global health among medical students and trainees has in part contributed to the establishment of academic centers or departments that focus on global health. Another major driver for the establishment of these centers has been the funding that has been set aside to investigate and promote global health by the U.S. government (e.g. via USAID, PEPFAR, NIH, etc.) and foundations or non-governmental organizations (e.g. Bill and Melinda Gates Foundation). The annual meeting of the Consortium of Universities for Global Health or a perusal of their website (www.cugh.org) provides a convenient overview of the topics that are typically within scope for those interested in global health.

Global health is relevant to the field of gastroenterology and hepatology for several reasons. First, the global burden of GI disease is substantial. For example, diarrhea is one of the leading causes of death and disability worldwide as is viral hepatitis, cirrhosis and the complications of chronic liver disease. Gastrointestinal malignancies are prominent concerns as are the consequences of under- and over-nutrition. Furthermore, there are lessons to be learned from geographic variances in disease expression (e.g. IBD, GI malignancies, etc.), particularly when societies are undergoing changes that impact the social determinants of disease.

Second, with the increased mobility of populations, it is not uncommon for gastroenterologists to be confronted with diseases or symptoms close to home that were previously confined to under-resourced areas of the world. Gastroenterologists need to be familiar with these diseases and their risk factors in the increasingly diverse populations that they serve.

Finally, there is a genuine interest among some gastroenterologists to volunteer their services overseas in areas of need. While admirable, there are several potential pitfalls to gastroenterologists working in under-resourced areas. First, the activities can, at times, focus on transient or temporary work. While addressing the needs of patients in front of them, these activities often fail to contribute to the strengthening of local systems or providers and may in fact undermine them. Sustainable, enabling initiatives such as those outlined in “Needs and Opportunities in Sub-Saharan Africa”, appearing in the September/October 2012 issue of AGA Perspectives and available on the AGA website (www.gastro.org), or the outreach and training opportunities that are promoted by the World Gastroenterology Organization (www.worldgastroenterology.org) are preferred approaches.

A second potential pitfall relates to those with an agenda that focuses on research or academic exchanges. Although often quite positive, these can end up being exploitative and “one-sided” to the benefit of the foreigners who are visiting from more advantaged countries. Keeping a focus on approaches that benefit, and are hopefully driven by, partners in areas of need should be prioritized.

Some may take issue with the development of the field of gastroenterology in poor areas of the world where a focus on primary care or the provision of such basic rights such as clean water or sanitation should be emphasized. Any diversion of resources from these primary needs may be viewed as a distraction. However, every country, no matter how poor, deserves to have the development of expertise, particularly in light of how common-place GI diseases are in under-resourced areas. Furthermore, poor regions desperately need economic development and the cultivation of entrepreneurs, including returning expatriates who have enjoyed success (and better health care) in more prosperous countries. These individuals will require access to more modern health care if they are to continue to strengthen the economic base of the countries where they wish to work.

A final cautionary note pertains to the reliance of gastroenterology on procedures and technical support. Equipment is often sent to under-resourced areas without the expertise, funding or support to maintain them. A tour of many of the more advanced hospitals in under-resourced areas of the world will often reveal endoscopes and related equipment, often second-hand from well-meaning donors, piling up in the corner because of an inability to service them.

In summary, gastroenterology is an important dimension of a growing global health movement. Gastroenterologists will have increasing opportunities and responsibilities to strengthen the field and cultivate the expertise that will benefit patients worldwide.

REFERENCES
AN AGA RESEARCH FOUNDATION

VIDEO SERIES

THE STORIES BEHIND THE SCIENCE

C. Richard Boland, MD, AGAF, Chronicles the Research That Saved His Family

Visit gastro.org/foundation to watch Dr. Boland’s video and to learn more about the AGA Research Foundation.
How to Thrive in the New World of Accountable Care

As reimbursement shifts from fee-for-service to value-based reimbursement, physicians must focus on the quality — rather than the quantity — of services provided. AGA’s Roadmap to the Future of GI will help you make the most of health-care reform and implement changes in your practice so you can not only survive — but thrive — in the new accountable-care environment.

DELIVER HIGH-VALUE CARE

DEMONSTRATE QUALITY

MAXIMIZE REVENUE

Read “Thriving in the New World of Accountable Care” on page 8.